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## RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

*Ex parte* JUN SAITO, HIDEICHI NITTA, HIROYUKI YAMASHITA, and  
YUSHI SAKATA

Appeal 2009-000475  
Application 10/049,995  
Technology Center 1700

Oral Hearing Held: November 19, 2009

Before BRADLEY R. GARRIS, CHUNG K. PAK, and PETER F. KRATZ,  
*Administrative Patent Judges.*

ON BEHALF OF THE APPELLANT:

Birch, Stewart, Kolasch & Birch, LLP  
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Falls Church, Virginia 22040-0747

1       The above-entitled matter came on for hearing on Thursday,  
2 November 19, 2009, commencing at 9:09a.m., at the U.S. Patent and  
3 Trademark Office, 600 Dulany Street, Alexandria, Virginia, before Dawn A.  
4 Brown, Notary Public.

5

6       THE USHER: Good morning. Calendar Number 65, Mr. Rink.

7       JUDGE GARRIS: Thank you, Lisa.

8       THE USHER: You're welcome.

9       JUDGE GARRIS: Good morning, Mr. Rink.

10      MR. RINK: Good morning.

11       JUDGE GARRIS: Sir, as you know, you have about 20 minutes to  
12 present your case. Before we begin, however, I wonder if you have a name  
13 card that you could give to our reporter, please. That would be helpful.  
14 In addition, I wonder if you could introduce your guests.

15       MR. RINK: Okay. I am joined by John Bailey of Birch, Stewart,  
16 Kolasch & Birch, the same law firm as me. And this is Mr. Kubo of Kao  
17 Corporation, who is the Assignee of this application.

18       JUDGE GARRIS: Welcome to the Board, gentlemen. Mr. Rink,  
19 please begin.

20       MR. RINK: Good morning. As I said, my name is Chad Rink for  
21 Birch, Stewart, Kolasch & Birch. I am here on behalf of the Applicants for  
22 Application Number 10/049,995, which has been assigned to Kao  
23 Corporation. The claims on appeal are Claims 1 through 7, 9 through 13, and  
24 15 through 19. Claims 1 and 10 are independent claims. Claims 2 through  
25 7, 9, 16 and 18 are dependent claims that ultimately depend from Claim 1.

1 And Claims 11 through 13, 15, 17 and 19 are dependent claims that  
2 ultimately depend from Claim 10. Appellants request that each of these  
3 claims be considered separately and request the final rejection of these  
4 claims be reversed by this honorable Board.

5 JUDGE GARRIS: Let me stop you there. In your Appeal Brief and  
6 your Reply Brief, you do not separately argue any claims other than the  
7 Independent Claims 1 and 10. No dependent claims have been separately  
8 argued; isn't that correct?

9 MR. RINK: Respectfully, I do not believe so. Let's see. On the  
10 Appeal Brief, the dependent claims were separately set forth on -- let's see.  
11 Starting on Page 18, for instance, it mentions Dependent Claims 2, 5 and 11,  
12 sets forth what those claims recite, and then it talks about how Nitta is silent  
13 with respect to the limitations of these claims and clearly fails to quantify the  
14 point at which the inorganic powders are added at Step B as well as when  
15 such addition should cease. So although maybe not explicitly recited that the  
16 claims would be argued separately, there are separate arguments for the  
17 dependent claims.

18 JUDGE GARRIS: So, then, we take this statement in your Brief that  
19 Nitta is silent to be an argument --

20 MR. RINK: Right, yes.

21 JUDGE GARRIS: -- for separate patentability; is that right?

22 MR. RINK: Yes. It just simply does not disclose this limitation.

23 JUDGE GARRIS: All right. Please continue.

24 MR. RINK: Okay. As background, the present invention is directed  
25 to a process for preparing a high-bulk density detergent composition having

1 a bulk density of 650 grams per liter or more comprising the steps of, A,  
2 blending a liquid acid precursor of an anionic surfactant with a  
3 water-soluble, alkali inorganic substance in an amount equal to or exceeding  
4 an amount necessary for neutralizing a liquid acid precursor in a substantial  
5 absence of an alkali metal aluminosilicate. And beginning Step B, after a  
6 point of initiating formation of coarse grains in the neutralization mixture  
7 obtained during the course of neutralizing the liquid acid precursor.  
8 And B, adding an inorganic powder, such as an alkali metal aluminosilicate  
9 in a liquid binder, to a neutralization mixture obtained in Step A and mixing  
10 a resulting mixture where an inorganic powder is added to the neutralization  
11 mixture prior to the addition of the liquid binder to the neutralization  
12 mixture. And then the inorganic powder is added to the neutralization  
13 mixture after the addition of the liquid binder to the neutralization mixture.  
14 And wherein the inorganic powder is added to the neutralization mixture in  
15 Step B in an amount of 8 to 50 percent by weight of the high-bulk density  
16 detergent composition, which is the final product. To simplify this claim,  
17 Step A involves blending a liquid acid precursor with an inorganic substance  
18 in a substantial absence of an alkali metal aluminosilicate to form a  
19 neutralization mixture. Step B begins after a point of initiating formation of  
20 coarse grains in the neutralization mixture. In Step B, an inorganic powder,  
21 such as an alkali metal aluminosilicate, and a liquid binder are added to the  
22 neutralization mixture; however, the inorganic powder is added both prior to  
23 and after the addition of the liquid binder. Thus, the present invention  
24 recites specific timing in this claim process.

1 First, utilizing a substantial absence of an alkali metal aluminosilicate before  
2 a point of initiating formation of coarse grains in the neutralization mixture.  
3 Second, adding the inorganic powder -- for example, alkali metal  
4 aluminosilicate -- after a point of initiating formation of coarse grains in the  
5 neutralization mixture obtained during the course of neutralizing the liquid  
6 acid precursor. And third, adding the inorganic powder several times rather  
7 than all at once. The advantages of adding the inorganic powder in Step B at  
8 a time both prior to and after the addition of the liquid binder to the  
9 neutralization mixture include the effect of accelerating the disintegration  
10 effect of the neutralization mixture. Also, a high-bulk density detergent  
11 composition comprising a granular mixture having a high-bulk density of  
12 650 grams per liter or more is obtained. Wherein, the detergent composition  
13 has both excellent detergent properties and a small particle size.  
14 The recited additional requirements set forth for the inorganic powder  
15 unexpectedly allow the particle size to advantageously be controlled in a  
16 manner that was not heretofore expected. Once the quantity of an alkali  
17 metal aluminosilicate, such as zeolite, is added in a neutralization process,  
18 the deterioration of the alkali metal aluminosilicate takes place. So the  
19 detergency of the detergent composition being prepared is low. In addition,  
20 where the alkali metal aluminosilicate is added all at one time, an  
21 aggregation of the alkali metal aluminosilicate takes place. However, in the  
22 present invention, the neutralization process takes place in a substantial  
23 absence of an alkali metal aluminosilicate before a point of initiation of  
24 coarse grains and neutralization mixture.

1 And then alkali metal aluminosilicate is added at several different times after  
2 a point of initiation of formation of coarse grains in the neutralization  
3 mixture. On March 23, 2007, the Final Office Action was issued. In that  
4 Office Action, the Examiner rejected Claims 1 through 7, 9 through 13, and  
5 15 thorough 19 under 35 U.S.C. Section 103(a) as being unpatentable over  
6 EP 0936269 to Nitta or U.S. Patent Number 6,794,354 to Mort. I'll refer to  
7 these as Nitta and Mort from here on out. On November 14th, 2007, an  
8 Appeal Brief was filed that responded to these rejections. An Examiner's  
9 Answer was issued on January 15th, 2008, and a Reply Brief was filed on  
10 February 29th, 2008. Now, turning to the arguments at hand. I'll refer to  
11 both Nitta and Mort, since the rejection is based on similar grounds. I will  
12 begin by addressing Independent Claims 1 and 10. Nitta and Mort fail to  
13 disclose the precise timing of the addition of an inorganic powder in Claim 1  
14 or an alkali metal aluminosilicate in Claim 10. Nitta and Mort also fail to  
15 disclose that this addition process can advantageously control particle size in  
16 the inventive methods and thereby arrive at a high-bulk density detergent  
17 composition having a bulk density of 650 grams per liter or more.  
18 On Page 6 of the Examiner's Answer, the Examiner asserts that Nitta  
19 disclosed that aluminosilicates may be added after the neutralization step.  
20 The Examiner then asserts that this satisfies the claim limitations.  
21 However, Independent Claims 1 and 10 explicitly recite the step of  
22 beginning Step B after a point of initiating formation of coarse grains in the  
23 neutralization mixture obtained during the course of neutralization of the  
24 liquid acid precursor.

1 Claim 1 then continues with Step B of adding an inorganic powder in a  
2 liquid binder to the neutralization mixture obtained in Step A. And Claim  
3 10 continues with Step B of adding an alkali metal aluminosilicate and a  
4 liquid binder to the neutralization mixture obtained in Step A. In other  
5 words, Appellants use an alkali aluminosilicate to prevent formation of  
6 coarse grains and a neutralization mixture during the neutralization step  
7 rather than during a surface-modification step after neutralization.

8 JUDGE GARRIS: Let me just ask you some questions about that.  
9 We'll focus on Claim 1 just to make it easy.

10 MR. RINK: Okay.

11 JUDGE GARRIS: The last two lines in Step A of Claim 1 are the --  
12 contain the recitation you had referred to earlier where it recites beginning  
13 Step B after the point of initiating formation of coarse grains. I understand  
14 the Examiner's position to be that each of these references does, in fact,  
15 teach adding the inorganic powder of Step B after the neutralization process  
16 has taken place. And I think you agree with that; is that correct?

17 MR. RINK: Yes. Basically, the distinction here is Claim 1 recites  
18 that it has to occur during the neutralization process.

19 JUDGE GARRIS: The question is, what recitation in Claim 1 is  
20 being modified by this phrase "during the course of the neutralization"?  
21 Because as actually recited, this language seems to be stating simply that the  
22 process of initiating formation of coarse grains is what occurs during the  
23 neutralizing step. It does not expressly state that adding the inorganic  
24 powder in Step B takes place during the neutralizing step. And I think that  
25 is the distinction between the position that you're arguing and the Examiner's

1 rejection. And so I guess my question to you is, what makes your  
2 interpretation of Claim 1 the correct interpretation? What specific language  
3 in this claim can we look at that makes it clear that the Step B addition  
4 occurs during the neutralizing process?

5 MR. RINK: Well, I think by looking, first, to the actual claim  
6 language and, second, to the arguments that we provided throughout  
7 prosecution makes it clear that the -- initiating the formation of coarse grains  
8 happens during the neutralization process. And also that Step B occurs  
9 during the neutralization process but after the initiation of the formation of  
10 the coarse grains. So there is almost two separate time periods that are  
11 occurring here within the time period of the neutralizing.

12 JUDGE GARRIS: It is that second part that I'm having trouble seeing  
13 in Claim 1.

14 MR. RINK: I'm sorry?

15 JUDGE GARRIS: What language in Claim 1 actually requires that  
16 the Step B addition of inorganic powder take place during neutralization?

17 MR. RINK: Well, if you were basically to, you know, move the last  
18 line there of Step A, and if you were to reorder it so it basically says  
19 beginning Step B during the course of neutralizing the liquid acid precursor  
20 and after a point of initiating the formation of coarse grains in the  
21 neutralization mixture, perhaps maybe that would be a better way to look at  
22 it. And since that, the most --

23 JUDGE GARRIS: Well, the problem is it does not recite that, so we  
24 can't look at it as though these words were somehow rearranged.

25 MR. RINK: Right. Well, they --

1           JUDGE GARRIS: We know in Claim 1 it does say that we begin  
2 Step B after the point of initiating coarse grain formation. And that part is  
3 clear. What is not clear is that Step B begins during the course of the  
4 neutralizing.

5           MR. RINK: Right. Yes, I understand what you're saying. But  
6 basically, the point is that the prepositional phrases could be presented in  
7 either order. Appellants in this case chose to put it in the second order, and  
8 through the prosecution history, Applicants have made it clear that that is  
9 what they are trying to show in the present invention, that this specific order  
10 and this specific timing is --

11          JUDGE PAK: Counsel, do we have any precedent that supports the  
12 view that the prosecution history -- that just simply because you make an  
13 argument during the prosecution, that somehow limits the claim or somehow  
14 forces the Examiner to interpret the claim based on your argument?

15          MR. RINK: I don't have anything specifically in front of me, but  
16 basically, the -- you know, the claim could be interpreted in the way that  
17 Applicants are presenting it. They have argued according to that  
18 interpretation, and the Examiner never made any remarks as to that.

19          JUDGE PAK: Counselor, let me just say this. The Examiner during  
20 the examination of patent application case law in the case, that the Examiner  
21 is to take the broadest reasonable interpretation in light of the application.  
22 It does not say that you look at prosecution history when the prosecution is  
23 still open, consider that and add that argument as if it is part of the claim  
24 limitation and interpret the claim in that manner.

1           MR. RINK: Yes. I understand what you're saying. You know, I  
2 respectfully disagree. I think the claim has been interpreted as being during  
3 the course of neutralizing. The Examiner has understood this limitation and  
4 has still asserted that the -- it would be obvious to put the specific timing of  
5 the present invention using the cited references, and that is what we've been  
6 arguing throughout the prosecution is that the specific timing is not obvious  
7 and it provides unexpected results that cannot be shown from the cited  
8 references that the Examiner has presented.

9           JUDGE GARRIS: Well, even if we were to assume this more narrow  
10 interpretation that you're urging is the one we should adopt for Claim 1, then  
11 let me ask you about whether, in fact, even as narrowly interpreted in this  
12 fashion, would this limitation of Claim 1 distinguish patentably over the  
13 prior art? And in this regard, let's look at the Mort reference, because in  
14 Column 7 of Mort, there is a teaching that I think may shed some light on  
15 this matter. This is the part of Mort that the Examiner has referred to, and it  
16 is -- well, the section of Mort's disclosure that talks about adding an optional  
17 liquid and particulate materials such as zeolite. In other words, it is the part  
18 of Mort's disclosure that relates to Step B of your Claim 1. Now, I put  
19 that -- I mention this for context because what I particularly would like you  
20 to look at is the first full paragraph in Column 7 that begins with Line 4. It  
21 talks about the neutralization that takes place in the first step, and it says that  
22 the detergent material is obtained wherein preferably at least 80 percent,  
23 more preferably 90 percent, most preferably all of the acid precursor has  
24 been neutralized. You see the disclosure I'm referring to, correct?

25           MR. RINK: Yes.

1           JUDGE GARRIS: And so while the most preferred embodiment of  
2 Mort indicates that all of the acid precursor has been neutralized, Mort also  
3 teaches that as little as 80 percent might be neutralized during the first step  
4 of his process. And if that is indeed the case, then the subsequent optional  
5 step disclosed here in Column 7 of Mort, which corresponds to your Step B,  
6 would take place during the neutralization, would it not?

7           MR. RINK: Well, I think that may be reading into Mort more than it  
8 is actually disclosing, since it only says that it is neutralizing at least  
9 80 percent. It does not disclose that it would ever be neutralized up to  
10 100 percent. So basically, the neutralizing step, from my interpretation of  
11 what I am reading as Mort, would basically end after that initial  
12 neutralization step and would not proceed any further.

13           JUDGE GARRIS: I don't understand. Are you saying that once it  
14 reaches 80 percent, there would be no more possibility of neutralization --

15           MR. RINK: Right. Mort does not seem to disclose any further  
16 neutralizing after that initial step.

17           JUDGE GARRIS: Well, what Mort does say is that during this first  
18 step that, as he puts it, preferably at least 80 percent of the acid precursor has  
19 been neutralized. And so if we look at that 80 percent volume as taking  
20 place -- as being the percentage of neutralization that takes place in the first  
21 step, then it leaves a 20 percent additional neutralization that will take place  
22 in the subsequent step.

23           MR. RINK: Well, it never discloses that the -- that additional 20  
24 percent would actually occur.

1           JUDGE GARRIS: Well, how would it not occur if it is less than  
2 100 percent? What would stop the neutralization from going to completion?

3           MR. RINK: Well, presumably the next step of -- disclosed in Mort.

4           JUDGE GARRIS: Do you have any factual support for that?

5           MR. RINK: Basically just from what it is reading. It doesn't say  
6 anything about further neutralizing. It simply discloses this optional  
7 intermediate step that would occur basically after what they recite as this dry  
8 neutralization step.

9           JUDGE GARRIS: We have almost no time left and, therefore, I will  
10 ask you to very briefly for the next minute or two present any additional  
11 argument for the independent claims you may wish to.

12           MR. RINK: Okay. Thank you. So basically, aside from the timing  
13 issue, the present invention has shown unexpected results. This is shown in  
14 the Appeal Brief and the Reply Brief where it is shown that doing the step  
15 during the neutralization process rather than after the neutralization process  
16 provides a much smaller particle size, which leads to an improved  
17 detergency.

18           JUDGE GARRIS: Where in your Appeal Brief is this argument?

19           MR. RINK: That would be where we reproduced Table 6 of Nitta. That is  
20 on Page 16. We also have similar arguments in the Reply Brief starting on  
21 page --

22           JUDGE GARRIS: I need -- in the Appeal Brief, I need you to point  
23 out to me where there is an argument that there is unexpected results here.  
24 I'm not seeing that on Page 16.

1           MR. RINK: Okay. Basically, let's see here. On Page 15, we discuss  
2 Table 6 of Nitta where it said -- talks about the comparative data set forth  
3 and Comparative Examples 18 and 19 and a second set of 11 to 17.  
4 And Comparative Examples 18 to 19, they're different from the present  
5 invention in that zeolite is added in the neutralization process in an amount  
6 of 7.7 parts by weight or about 21 to 22 percent from the beginning of the  
7 process. We discuss that this leads to a high possibility that deterioration of a  
8 zeolite takes place in Comparative Examples 18 to 19. So the detergency is  
9 lowered. This is approximately the same process as shown in Comparative  
10 Example 1 of the present invention, which was shown to not have the results  
11 that are provided by the present invention.

12           JUDGE GARRIS: Well, let me just say that I really am not seeing on  
13 these pages you refer to in the Appeal Brief a statement that these  
14 differences are, in fact, unexpected results as indicia of nonobviousness here.  
15 There may be differences, but at best, these differences are based on your  
16 more narrow construction of Claim 1 that we had discussed earlier.  
17 And perhaps as important, you don't really seem to be characterizing -- in  
18 this part of your Appeal Brief, you don't seem to be characterizing these  
19 results as being unexpected.

20           MR. RINK: Well, then, I guess in the Reply Brief it is more explicit  
21 where we explain these results. Starting on Page 5, we talk about comparing  
22 Table 5 of the present invention with Table 3 of Nitta, and those are  
23 reproduced. As shown in Table 5, it discloses an average particle size of  
24 453 to 465 microns immediately after acid addition, and a final average

1 particle size of 450 to 474 microns. In contrast, the composition of Nitta has  
2 a much larger average particle size of 496 to 703 microns.

3 JUDGE GARRIS: I want to make clear that we are aware of this part  
4 of your Reply Brief. You will understand perhaps we want to see these  
5 kinds of arguments and evidence first presented in the main Appeal Brief  
6 rather than the Reply Brief, because when they're first presented in the  
7 Appeal Brief, it puts the Examiner on notice this is part of your principal  
8 argument. It gives the Examiner a clear opportunity to respond to it.  
9 And it helps the Board, then, to develop these and consider these issues in a  
10 more crystallized way. When you wait until the Reply Brief to present some  
11 things that could have been presented in the Appeal Brief, it inhibits the  
12 crystallization of the issues that we're supposed to consider.  
13 We won't go into this anymore. Our time really is up and so, Mr. Rink,  
14 thank you for your arguments.

15 MR. RINK: Thank you.

16 JUDGE GARRIS: We'll consider them all today and render a  
17 decision in the near future.

18 MR. RINK: Thank you very much for your time.

19 JUDGE GARRIS: I apologize, first, before I let you go. I want to ask  
20 my colleagues, Judge Pak, do you have any further questions?

21 JUDGE PAK: No.

22 JUDGE GARRIS: Judge Kratz?

23 JUDGE KRATZ: No questions.

24 JUDGE GARRIS: No questions. Thank you again, sir, and thank  
25 you, gentlemen.

1 MR. RINK: Thank you.

2 Whereupon, the proceedings at 9:35 a.m. were concluded.

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